

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WISCONSIN**

SIERRA CLUB, )  
85 Second Street, 2<sup>nd</sup> Floor )  
San Francisco, CA 94105 )

Plaintiff, )

vs. )

Civil Action No. 10-CV-511

WISCONSIN POWER AND LIGHT )  
COMPANY, )  
4902 N. Biltmore Lane )  
Madison, WI 53718-2132 )

Defendant. )

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**COMPLAINT**

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Plaintiff, Sierra Club, by its undersigned attorneys, alleges as follows:

**INTRODUCTION**

1. This is a civil action for civil penalties, declaratory and injunctive relief, with costs and fees, under the Clean Air Act (“the Act” or “CAA”), 42 U.S.C. §§ 7401, *et seq.*

2. Sierra Club seeks an order requiring the Defendant, Wisconsin Power And Light Company (“WPL”), to comply with the requirements of the Act at the Nelson E. Dewey (“NED”) power plant located at 11999 County Road VV, Cassville, Grant County, Wisconsin, along the Mississippi River, which is owned and operated by Defendant, and at the Columbia Generating Station (“CGS”) power plant located at W8375 Murray Road, Pardeeville, Wisconsin, along the Wisconsin River south of Portage, which is owned, in part, by Defendant and is operated by Defendant.

3. The NED plant is a coal-fired power plant capable of generating about 200 megawatts (MW) of electricity, consisting of two boilers, each currently rated at approximately 1260 million British Thermal Units (“MMBtu”) per hour. Both boilers are cyclone-type. NED Unit 1 was installed in or about 1959 and NED Unit 2 was installed in or about 1962.

4. The NED plant is a “fossil fuel-fired steam electric plant of more than 250 million British Thermal Units per hour heat input” as that term is used in 40 C.F.R. 52.21(b)(1)(1999) and 42 U.S.C. § 7479(1).

5. The NED boilers are currently physically capable of burning coal, #2 fuel oil, wood, tire derived fuel, petroleum contaminated soils, boiler cleaning waste, petroleum coke, and metallurgical coke. Coal is the predominant fuel.

6. The NED boilers exhaust their product combustion gases and other pollutants through a shared stack.

7. The NED plant has the “potential to emit,” as that term is defined in Wis. Admin. Code § NR 405.02(25) and 40 C.F.R. 52.21(b)(4)(1999), in excess of 100 tons per year of the following pollutants: carbon dioxide, nitrogen oxides, sulfur dioxide, carbon monoxide, and particulate matter.

8. The NED plant is a “major emitting facility,” as that term is used in 42 U.S.C. § 7475(a).

9. The NED plant is a “major stationary source,” as that term is used in 40 C.F.R. §§ 52.21(b)(1)(1999) and Wis. Admin. Code §§ NR 405.02(22), NR 405.07(1).

10. NED units 1 and 2 were manufactured by the Babcock and Wilcox company and each has three cyclone burners located at the front of the boiler.

11. NED units 1 and 2 operate with pressurized furnaces and do not have induced draft (“ID”) fans.

12. During the summer, the forced draft (“FD”) fans on the NED boilers operate at maximum capacity and limit the plant’s electrical output during periods of high ambient temperatures.

13. According to reports filed by Defendant with the Wisconsin Department of Natural Resources, emissions from the NED plant were as follows for each of the last two years:

Year	Emissions (in pounds)							
	Sulfur Dioxide (SO <sub>2</sub> )	Nitrogen Oxides (NO <sub>x</sub> )	Particulate Matter (PM)	Carbon Monoxide (CO)	Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	Carbon Dioxide (CO <sub>2</sub> )	Hydrogen Chloride (HCl)	Mercury (Hg)
2009	25,292,680	4,763,623	387,857	735,620	536,584	2,957,516,462	20,249	29.87
2008	27,062,660	5,177,480	803,331	1,216,000	583,005	3,207,665,140	20,403	47

14. NED Units 1 and 2 are WPL’s second and third oldest coal-fired units and the units with the highest emission rate of sulfur dioxide (SO<sub>2</sub>) emissions per unit of energy output. Only WPL’s Edgewater Unit 3, located in Sheboygan, Wisconsin, is older than the NED units.

15. NED Unit 1, also known as “Boiler 21” or “B21,” has the following potential to emit for the specified air pollutants:

Pollutant	Potential to Emit in Tons/Year
Particulate	2,483
Sulfur Dioxide	17,660
Carbon Monoxide	205
Nitrogen Oxides	4,761

16. NED Unit 2, also known as “Boiler 22” or “B22,” has the following potential to emit for the specified air pollutants:

<b>Pollutant</b>	<b>Potential to Emit in Tons/Year</b>
Particulate	2,483
Sulfur Dioxide	17,660
Carbon Monoxide	205
Nitrogen Oxides	4,761

17. In 1994, WPL predicted that the NED units 1 and 2 would be retired in 2010. However, WPL has made capital investments in the plant since 1994. The plant now continues to operate. WPL has no current intention or plans to retire the boilers.

18. WPL conducted a “life extension” analysis for a number of coal-fired boilers, including NED units 1 and 2, in which WPL identified replacement of superheater and reheater tubes on NED units 1 and 2 as a project to extend the life of the boilers from a base 50 year life to a 60 to 70 year life.

19. The Columbia Generating Station (CGS) consists of two coal-fired boilers each rated at approximately 5,885 million Btu per hour and 527 megawatts, an oil-fired auxiliary boiler rated at approximately 182.4 million Btu per hour, and associated coal handling, rail car dumpers, conveyers, storage piles and other equipment.

20. CGS Unit 1 is a dry bottom, pulverized coal, tangential fired boiler that was installed in or about 1971, and that burns up to 306 tons of coal per hour.

21. CGS Unit 2 is a dry bottom, pulverized coal, tangential fired boiler that was installed in or about 1975, and that burns up to 306 tons of coal per hour.

22. Each of the CGS boilers exhausts its product combustion gases and other pollutants through a separate stack.

23. Each of the CGS boilers has the “potential to emit,” as that term is defined in Wis. Admin. Code § NR 405.02(25) and 40 C.F.R. 52.21(b)(4)(1999), in excess of 100 tons per year of each of the following pollutants: carbon monoxide, particulate matter, nitrogen oxides, and sulfur dioxide. CGS is a “fossil fuel-fired steam electric plant of more than 250 million British Thermal Units per hour heat input” as that term is used in 40 C.F.R. 52.21(b)(1)(1999) and 42 U.S.C. § 7479(1).

24. The CGS has the following potential to emit:

<b>Pollutant</b>	<b>Potential to Emit (TPY)</b>
Particulate Matter	18,180.05
Sulfur Dioxide	113,821.47
Nitrogen Oxides	41,959.32
Carbon Monoxide	77,932.03
VOCs	1,261.81
Lead	0.47

25. The CGS is a “major emitting facility,” as that term is used in 42 U.S.C. § 7475(a).

26. The CGS is a “major stationary source,” as that term is used in 40 C.F.R. §§ 52.21(b)(1)(1999) and Wis. Admin. Code §§ NR 405.02(22), NR 405.07(1).

27. According to reports filed by WPL with the Wisconsin Department of Natural Resources, emissions from the NED plant were as follows for each of the last two years:

<b>Year</b>	<b>Emissions (in pounds)</b>							<b>Mercury (Hg)</b>
	<b>Sulfur Dioxide (SO<sub>2</sub>)</b>	<b>Nitrogen Oxides (NO<sub>x</sub>)</b>	<b>Particulate Matter (PM)</b>	<b>Carbon Monoxide (CO)</b>	<b>Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>)</b>	<b>Carbon Dioxide (CO<sub>2</sub>)</b>	<b>Hydrogen Chloride (HCl)</b>	
2009	48,456,669	9,534,002	3,858,597	5,721,200	144,063	14,736,634,360	67,486	626
2008	53,730,366	10,529,685	4,348,081	8,396,634	20,708	16,594,227,700	75,930	592

28. As a result of combustion and the addition of chemicals, such as ammonia, to the combustion process, the NED and CGS boilers emit thousands of tons of carbon dioxide, nitrogen oxides, sulfur oxides, particulate matter and carbon monoxide each year. Those pollutants contribute to climate change, respiratory distress, cardiovascular disease, and premature mortality. Nitrogen oxides and sulfur oxides in the air also contribute to acid rain, which sterilizes lakes and damages property, crops and forests. The presence of those pollutants in the atmosphere is also associated with increased hospital admissions and emergency room visits.

29. On one or more occasions, Defendant modified and thereafter operated each of the boilers at the NED station and each of the CGS boilers without first obtaining appropriate permits authorizing that construction, without meeting emission limits that are “best available control technology,” and without installing appropriate technology to control emissions of nitrogen oxides, sulfur dioxides, particulate matter, and other pollutants as required by the Act and its implementing regulations.

30. As a result of Defendant’s operation of the NED and CGS plants in violation of the law and applicable permits and in absence of appropriate controls and without certain permits required by law, unlawful amounts of various pollutants have been, and continue to be, released into the atmosphere, aggravating air pollution locally and far downwind from these plants.

31. An order from this Court directing Defendant to comply with applicable pollution limits, obtain the required permits, install modern pollution controls and demonstrate to the appropriate regulatory agencies that emissions from the facility will not result in unlawful amounts of air pollution, will improve air quality for thousands of Wisconsin residents,

including Sierra Club's members. It will also reduce illness and premature mortality and protect lakes and streams from further degradation due to the fallout from acid rain and mercury deposition.

32. If Defendant complies with the Act, including applicable emission limits and the Prevention of Significant Deterioration ("PSD") program, 42 U.S.C. §§ 7470-7479, the NED and CGS plants will significantly decrease their annual air pollution emissions.

### **PARTIES**

33. Plaintiff Sierra Club is an incorporated, not-for-profit organization with its headquarters at 85 Second Street, 2nd Floor, San Francisco, California, and its Wisconsin Chapter Office at 222 S. Hamilton St., Suite 1, Madison, WI 53703-3201. Its purpose is to preserve, protect, and enhance the natural environment. Its mission includes reducing and eliminating pollution from the mining, combustion, and waste disposal of coal, which negatively affects Sierra Club's members as well as members of the public. Sierra Club has over a million members and supporters nationwide, including over 10,000 members and supporters in Wisconsin.

34. Sierra Club is a "person" within the meaning of 42 U.S.C. §§ 7602(e) and 7604(a).

35. WPL is a corporation organized under the laws of Wisconsin. WPL is an investor-owned electric generation and distribution utility that is owned by Alliant Energy Corporation. WPL and Alliant Energy Corporation are headquartered and have their principal place of business in Madison, Wisconsin.

36. F.J. Buri, 4902 N. Biltmore Lane, Madison, Wisconsin, is the Registered Agent for both WPL and Alliant Energy Corporation, registered with the Wisconsin Department of Financial Institutions.

37. WPL is a “person” within the meaning of 42 U.S.C. §§ 7602(e) and 7604(a).

### **STANDING**

38. Sierra Club has members who live, work, engage in other economic activity, garden and recreate around and downwind from the NED and CGS plants. These members are impacted negatively by air pollution emissions from the plants. The health and welfare of Sierra Club’s members, as well as their enjoyment of outdoor activities, has been and continues to be harmed by air pollution from the plants.

39. An order of this Court enjoining Defendant from operating the NED and CGS plants, requiring it to comply with applicable pollution limits, and requiring Defendants to procure the required permits for the major modifications that have been made at the plants, will redress the injuries to Sierra Club’s members because of the significant decreases in air pollution that will be required. Sierra Club members’ injuries would also be redressed by any civil penalties awarded pursuant to 42 U.S.C. § 7604(a) and (g), including a beneficial mitigation project, and other required mitigation measures.

### **JURISDICTION AND VENUE**

40. This Court has subject matter jurisdiction over the claims set forth in this complaint pursuant to 42 U.S.C. § 7604(a), 28 U.S.C. §§ 1331, 1355, and 2201. The relief requested by the Plaintiff is authorized by statute in 28 U.S.C. §§ 2201 and 2202, and 42 U.S.C. § 7604.



41. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b) because the Defendant resides in, and all or a substantial part of the events or omissions giving rise to the claims herein occurred in, the Western District of Wisconsin. Venue is also proper pursuant to 42 U.S.C. § 7604(c)(1) because this action is for violations at the NED and CGS plants, which are located within the Western District of Wisconsin.

42. No prior notice is required for certain claims set forth below. 42 U.S.C. § 7604(a)(3). However, Sierra Club provided several notices pursuant to 42 U.S.C. § 7604(b), including the most recent one on December 21, 2009. That notice is attached hereto as Exhibit 1. More than 60 days has passed since Defendant received Sierra Club's most recent notice of intent to sue.

### **GENERAL ALLEGATIONS**

43. The Act requires that the United States Environmental Protection Agency (EPA) promulgate National Ambient Air Quality Standards (NAAQS), which are upper limits on air pollution in the ambient air, to protect public health and welfare, 42 U.S.C. § 7409.

44. The Act also requires EPA to designate those areas within its boundaries where the air quality meets or exceeds NAAQS for each pollutant. An area that meets the NAAQS for a particular pollutant is termed an "attainment" area, whereas an area that exceeds the NAAQS is a "nonattainment" area. Areas for which there is insufficient information to determine compliance with NAAQS are "unclassifiable," 42 U.S.C. § 7407(d).

45. The NED plant is located in Grant County, Wisconsin. At the times relevant to this complaint, Grant County was classified as either "attainment" or "unclassifiable" for all pollutants.

46. The CGS plant is located in Columbia County, Wisconsin. At the times relevant to this complaint, Columbia County was classified as either “attainment” or “unclassifiable” for all pollutants.

47. Defendant is a legally recognized corporation that owns and is responsible for the operations of the NED and CGS plants.

48. Coal is the predominant fuel for the NED boilers and the two main boilers at the CGS plant.

### **The Wisconsin State Implementation Plan**

49. The Wisconsin State Implementation Plan (SIP) has been approved by the United States Environmental Protection Agency (EPA) pursuant to the Clean Air Act and is incorporated into federal law by publication in the Federal Register and Code of Federal Regulations. *See e.g.*, 40 C.F.R. § 52.2569 *et seq.*

50. The Wisconsin SIP also contains, and at all relevant times hereto contained, provisions implementing the Clean Air Act’s Prevention of Significant Deterioration (PSD) Program. Different PSD regulations were adopted and applied at different times pursuant to the Wisconsin SIP. On June 19, 1978, EPA approved the Federal PSD program, 40 CFR 52.21 (b) through (v), into the Wisconsin SIP at 40 C.F.R. § 52.2581 because Wisconsin had not submitted an approvable PSD program. 43 Fed. Reg. 26,410. On August 19, 1980, EPA gave Wisconsin partial delegation to run the Federal PSD program, and on November 13, 1987, gave Wisconsin full delegation of the program, except for sources in Indian country. Pursuant to these delegations, the PSD program that applied in Wisconsin was the federal program at 40 C.F.R. §

52.21 and EPA was the ultimate permitting agency. However, the Wisconsin DNR had authority to issue permits on behalf of the EPA, subject to EPA's oversight.

51. On May 27, 1999, EPA promulgated a final rule adopting Wisconsin's PSD program in Wis. Admin. Code ch. NR 405 into the Wisconsin SIP in place of the federal rules in 40 C.F.R. § 52.21. 64 Fed. Reg. 28,745 (May 27, 1999). That rulemaking was effective on June 28, 1999. *Id.* On December 17, 2008, EPA promulgated a rule accepting certain revisions to the Wisconsin PSD program. 73 Fed. Reg. 76,560 (December 17, 2008). Those revisions were effective January 16, 2009. *Id.*<sup>1</sup>

52. In addition to the Prevention of Significant Deterioration program in Wis. Admin. Code ch. NR 405, the Wisconsin SIP requires sources to obtain a permit from the Wisconsin DNR for any non-exempt modification. Wis. Stat. § 285.60(1)(a)1.; Wis. Admin. Code § NR 406.03. The term "modification" for this program is defined as "any physical change in, or change in the method of operation of, a stationary source that increases the amount of emissions of an air contaminant or that results in the emission of an air contaminant not previously emitted." Wis. Admin. Code § NR 400.02(99).

### **The Prevention of Significant Deterioration Program**

53. Under the Clean Air Act's PSD program and Wisconsin's SIP, a new major source of air pollution cannot be constructed, and an existing major source of air pollution cannot undergo a "major modification," without a permit. *See* 42 U.S.C. §§ 7475(a) (prohibiting the construction of a major emitting facility without PSD review, issuance of a PSD permit, and

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<sup>1</sup> Sierra Club and Natural Resources Defense Council filed a petition for judicial review of EPA's December 17, 2008, action within the time provided by the Clean Air Act. If the Seventh Circuit reverses and/or remands the December 2008 EPA action, the 1999 version of Wis. Admin. Code ch. NR 405 will apply.

imposition of BACT limits), 7479(2)(C) (“construction” includes the “modification” of a source or facility); 40 C.F.R. § 52.21; Wis. Admin. Code § NR 405.07(1) (prohibiting the construction or major modification of a major stationary source without PSD review and permitting).

Therefore, any major stationary source in an attainment or unclassifiable area that intends to construct a “major modification” must first obtain a PSD permit.

54. A “major modification” is “any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase” of a regulated air contaminant. 40 C.F.R. § 52.21; Wis. Admin. Code § NR 405.02(21). Included in the definition of “major source” are fossil fuel fired steam electric plants and fossil fuel fired boilers. 40 C.F.R. § 52.21; Wis. Admin. Code § NR 405.02(22)(a)(1).

55. Pursuant to the PSD regulations applicable to pollution sources in Wisconsin for projects occurring prior to January 16, 2009, emissions increases are measured as the difference between the annual average emissions during the 24 months prior to the project and the plant’s post-project “actual emissions.” 40 C.F.R. § 52.21(b)(2), (3)(i), and (21) (1993); Wis. Admin. Code §§ NR 405.02(1), 405.02(24)(a) (1999).

56. Post-project “actual emissions” are the emission source’s potential to emit unless the source is an electric utility steam generating unit that meets certain monitoring and reporting requirements. 40 C.F.R. § 52.21(b)(21) (1993); Wis. Admin. Code § NR 405.02 (1) (1999).

57. Prior to January 16, 2009, an electric utility steam generating unit could determine emission increases by comparing its pre-project annual “actual emissions” to its “representative actual annual emissions... *provided* the source owner or operator maintains and submits to the department, on an annual basis for a period of 5 years from the date the unit resumes regular

operation, information demonstrating that the physical or operational change did not result in an emissions increase.” Wis. Admin. Code § NR 405.02(1)(d) (1999) (emphasis added); 40 C.F.R. § 52.21(b)(21)(v) (1993). This alternative “actual-to-projected-actual” test is conditional. It only applies when the owner or operator complies with the monitoring and reporting requirements.

58. NED units 1 and 2 and CGS units 1 and 2 are electric utility steam generating units because they are “constructed for the purpose of supplying more than one third of [their] potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale.” 40 C.F.R. §52.21(b)(31)(1999); Wis. Admin. Code § NR 405.02(11m).

59. WPL did not conduct the monitoring and reporting required under the regulations in effect before January 16, 2009, for WPL to take advantage of the “actual-to-projected-actual” test for any of the changes set forth below that occurred at the NED and CGS plants. Therefore, WPL’s projects default to the actual-to-potential test to calculate emission increases from the projects. However, even if the actual-to-projected-actual test applied, the projects resulted in a significant net emission increase of sulfur dioxide, nitrogen oxides, particulate matter, particulate matter less than 10 microns (PM10), particulate matter less than 2.5 microns (PM2.5), and other pollutants.

### **The Operating Permit Program**

60. Pursuant to Section 502(a) of the Clean Air Act, 42 U.S.C. § 7661(a), it is unlawful to operate a major source or affected source without, or in violation of, a permit issued pursuant to Clean Air Act subchapter five (“Title V”), 42 U.S.C. §§ 7661, *et seq.*

61. Wisconsin's major source operating permit program, known as Wisconsin's Part 70 or Title V program, was approved on March 6, 1995 and became effective on an interim basis on April 5, 1995. *See* 60 Fed. Reg. 12,128 (Mar. 6, 1995) (to be codified at 40 C.F.R. pt. 70). EPA later granted full approval of Wisconsin's Title V program on December 4, 2001. *See* 66 Fed. Reg. 62,951 (Dec. 4, 2001). Wis. Admin. Code ch. NR 407 has been incorporated into the Wisconsin SIP.

62. Wisconsin's Title V program requires an owner or operator to file an application to modify an existing Title V permit when the source makes modifications not authorized by the existing permit. Wis. Stat. §§ 285.60, 285.62; Wis. Admin. Code §§ NR 407.04(1)(b), 407.13. An application to modify a Title V permit must be filed prior to making the modification, Wis. Admin. Code § NR 407.04(1)(b), and must include sufficient information to allow the permitting agency and the public to determine whether the source is in compliance with all applicable Clean Air Act requirements. Wis. Admin. Code § NR 407.05(4)(e) and (i)1. All material statements in the application must be true. Wis. Admin. Code § NR 407.05(10). An incorrect or incomplete application must be revised "promptly" by the applicant. Wis. Admin. Code § NR 407.05(9). Moreover, pursuant to Wis. Stat. § 285.60(1)(b)1., no person may operate a modified source without an operating permit issued pursuant to Wis. Stat. § 285.62. Each day of operation since a modification undertaken without a required PSD permit also constitutes a violation of the requirements to apply for a revised Title V operating permit.

63. Pursuant to Wis. Admin. Code § NR 407.05(4)(i), each Title V operating permit application must contain a certification by the owner or operator that the source is currently in compliance with all applicable requirements, including PSD, NSPS and Clean Air Act section

112, 42 U.S.C. § 7412, requirements. Where a source is not in compliance with all requirements, the application must contain a narrative description of how the source will achieve compliance. Wis. Admin. Code § NR 407.05(4)(h)2.c. Additionally, for such sources that are not in compliance, the source must propose a compliance schedule that meets certain minimum requirements, including “a series of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance.” Wis. Admin. Code § NR 407.05(4)(h)3. There is an ongoing obligation to correct or supplement any pending application. Wis. Admin. Code § NR 407.05(9).

64. WPL submitted applications for permits for the NED plant on at least the following dates: July 30, 2003, February 28, 2007, February 29, 2007, September 8, 2009, and October 8, 2008.

65. WPL submitted applications for permits at the CGS plant on at least the following dates: July 22, 1999, March 29, 2001, April 26, 2002, August 30, 2005, January 3, 2007, October 17, 2007, November 15, 2007, June 3, 2008, February 10, 2009, September 3, 2009, October 13, 2007, August 25, 2010, and August 26, 2010.

66. Wisconsin Administrative Code §§ NR 407.05(4)(i)3 and 439.03(1)(c), (9), (10), require WPL to submit certifications of compliance annually to the Department of Natural Resources and U.S. EPA. Such certifications must be signed by a responsible official, based on information and belief formed after reasonable inquiry, and must be truthful. Wis. Admin. Code §§ NR 439.03(9), (10).

67. The Wisconsin Department of Natural Resources issued numerous permits to WPL for the operation of the NED plant. Those permits included Permits 122014530-P01, 122014530-P03, 122014530-P10, and 122014530-P11.

68. The Wisconsin Department of Natural Resources issued numerous permits to WPL for the operation of the CGS plant. Those permits include Permits 1110030990-P01, 111030990-P10, 111003090-P20, and 11103090-P21.

69. Each of the permits issued by the Wisconsin Department of Natural Resources for the NED and the CGS plant required WPL to submit certifications of compliance at least annually. The permits require the certifications to be truthful and signed by a responsible official.

70. Each permit issued by the Wisconsin Department of Natural Resources for the NED plant and the CGS plant also provides that it is a violation to “cause, allow, or permit emissions of any air contaminant into the ambient air in excess of the limits set in chs. NR 400 to 499, Wis. Adm. Code.” Any violation of any provision of Wis. Admin. Code chs. NR 400 through 499 therefore constitutes a violation of the applicable operating permit.

71. On December 14, 2009, the EPA issued a Notice and Finding of Violation to WPL and other utility companies pursuant to 42 U.S.C. § 7413(a). In the Notice and Finding of Violation, EPA states that it has determined that WPL and others are violating the Prevention of Significant Deterioration requirements of the Clean Air Act at the NED and CGS plants and at other power plants in Wisconsin. As of the date of this Complaint, the United States has not commenced an action against WPL in a court of the United States or a State for the violations alleged herein.



### **Modifications Made to the NED Plant**

#### *A. Replacement of the Cyclone Burners at NED 1 and 2*

72. WPL replaced the cyclone burners on NED unit 1 in January and February, 2003, and on NED unit 2 between October, 2002 and January, 2003. This was the first cyclone burner replacement at each respective boiler since the original burners were installed in the late 1950s and early 1960s.

73. The expenditure to replace the cyclone burners on NED units 1 and 2 was treated by WPL as a capital expenditure.

74. The labor to replace the cyclone burners was provided by Babcock & Wilcox, an outside contractor, pursuant to a contract awarded in August, 2002.

75. Babcock & Wilcox also manufactured the cyclones that were installed on NED 1 and 2 under a separate contract than the contract for the labor to install the new cyclones.

76. WPL had previously considered replacing the cyclone burners as part of WPL's so-called "Combustion Initiative," which was a project purportedly intended to decrease emissions of Nitrogen Oxides (NOx) at WPL plants. However, after investigation by the Public Service Commission of Wisconsin ("PSCW"), WPL decided not to replace the cyclones as part of a NOx reduction project and withdrew the cyclone burners from its application for the "Combustion Initiative." The Combustion Initiative began in September, 2001, and WPL notified the Wisconsin DNR that it was commencing the Combustion Initiative at that time.

77. WPL later decided to replace the cyclone burners on NED 1 and 2 for the purpose of extending the life of the boilers after an inspection in October and December, 2001, confirmed

that the cyclone tubes were in poor condition, were highly fatigued, and had extensive pad welding in the front half of the clone barrels.

78. The project to replace the NED 1 cyclones was approved by WPL management, including President William Harvey, on December 21, 2001.

79. WPL applied for a Certificate of Authority from the Public Service Commission of Wisconsin (PSCW) for the replacement of the cyclone burners on NED Unit 1 on July 8, 2002, and for the Unit 2 on May 17, 2002. In those filings, WPL stated that the purpose of the project was to minimize the potential for expensive forced outages due to deterioration due to the years of services and reduced wall thickness of the tubes and not as part of a NOx reduction project (the Combustion Initiative).

80. WPL did not disclose to the Wisconsin DNR or the EPA that the purpose of the cyclone burner replacement on NED units 1 and 2 was for a reason other than NOx reduction.

81. WPL has continually attempted to circumvent PSD program requirements by representing, explicitly and implicitly, that the cyclone burner replacement project was done as part of the "Combustion Initiative" and to reduce NOx emissions, rather than its true purpose: replacing worn equipment. WPL has made affirmative efforts to prevent regulators and the public from discovering that truth about the cyclone burner replacement project, including through misleading statements made in response to requests for information made by the EPA pursuant to 42 U.S.C. § 7414.

*B. The NED Unit 1 Superheater and Reheat Replacement*

82. On April 24, 2000, WPL approved a project to remove and replace the superheat and reheat pendant sections of the NED Unit 1 boiler at an approved cost of \$910,303.

83. The project to remove and replace the superheat and reheat pendant sections on NED Unit 1 was completed, and the unit was returned to service (“in-service”) on or about November 14, 2000.

84. The project involved replacing 65 tube bundles, penthouse asbestos abatement, reinsulation and roof tube seal repair.

85. Potts Welding, an outside contractor, provided the material and labor to fabricate 34 secondary superheaters and 33 reheat pendants for installation during the project.

86. The final cost of removing and replacing the superheat and reheat pendant sections on NED Unit 1 was \$1,182,370.

87. The project to remove and replace the superheat and reheat pendant section on NED Unit 1 was considered a capital expenditure on WPL’s budget documents.

88. WPL predicted that a 36-week lead time was required prior to beginning the Unit 1 project and that the project would require a 5-week boiler outage.

89. NED Unit 1 was off-line for the work to remove and replace the superheat and reheat pendant section on NED Unit 1 from September 24, 2000 until November 9, 2000, for a period of 1,113.92 hours.

90. WPL predicted that the project to remove and replace the superheat and reheat pendant section on NED Unit 1 would improve the heat rate of the unit and would increase the boiler’s availability.

*C. The NED Unit 2 Superheat and Reheat Replacement*

91. On August 8, 2000, WPL approved a project to remove and replace the superheat and reheat pendant section on NED Unit 2 at an approved cost of \$861,908.

92. The project to remove and replace the superheat and reheat pendant sections on NED Unit 2 involved replacing 65 tube pendants.

93. The project to remove and replace the superheat and reheat pendant section on NED Unit 2 began on September 16, 2001 and the labor was provided by an outside contractor.

94. WPL treated the expenditures for the Unit 2 superheat and reheat project as a capital expenditure.

95. WPL predicted that a 180-day lead time was required prior to beginning the Unit 2 project and that the project would require a 6 to 7-week boiler outage.

96. The superheater and reheat replacement projects on NED units 1 and 2 were the first replacement of those components at each respective boiler. WPL has never replaced the superheater or the reheater on any of its coal-fired units more than once during the life of each boiler.

*D. Air Inlet Modifications at NED.*

97. In or about April, 2000, WPL installed or relocated ventilation inlets on the roof of the boiler building to lower interior temperatures during hot months.

98. The ventilation project cost approximately \$300,000.

99. The ventilation project was intended to allow the NED boilers to operate more during hot days, which results in increased fuel consumption and emissions.

*E. Installation of Soot Blowing and Water Lances on NED Units 1 and 2.*

100. In or about February, 1999, WPL installed new soot blowing equipment and water lances on the NED units 1 and 2 boilers at a cost of approximately \$400,000.

101. The new soot blowing and water lance equipment was a change in design from the original equipment and allowed for increased cleaning of the boiler tubes.

102. During the years prior to the soot blower project, WPL was experiencing slag and ash accumulation on the tubes in the NED 1 and 2 boilers, which decreased the operating rate and hours that the boilers were able to operate.

103. The new soot blowing equipment installed on NED 1 and 2 reduced the slag and ash accumulation in those boilers and allowed for more operation, therefore more emissions.

**Modification Made to the Columbia Generating Station**

104. WPL modified the Columbia Generating Station by replacing the reheat and superheater division panels on CGS Unit 2 in or about March, 2005.

105. On March 3, 2004, WPL's agent, Charlie Ohl of Alliant Energy, submitted an application to the Public Service Commission of Wisconsin ("PSCW") seeking authorization pursuant to Wis. Stat. § 196.49 and Wis. Admin. Code ch. PSC 112 to replace the CGS Unit 2 boiler reheat front pendants, finishing reheat section and reheat outlet header.

106. According to the application filed with the PSCW, the purpose of the project was to minimize forced outages due to the condition of the reheater tubes after many years of service, long term exposure to high temperatures, dissimilar metal weld failures in the gas stream, coal ash corrosion, and stress corrosion cracking.

107. WPL planned a six (6) week boiler outage to complete the project and set forth a schedule wherein planning began in February, 2004, and the project would be completed in April or May, 2005.

108. WPL told the PSCW that forced outages due to the CGS Unit 2 reheat section “have occurred each year since 2001” and that each failure “resulted in outage duration of 2-3 days.”

109. WPL’s filings with the PSCW compared the project to replace the reheat sections of the boiler with WPL’s then-current practice “of repairing deteriorated areas of the Reheat elements found during inspections conducted during the annual spring outages” and determined that by replacing the reheat section, WPL would avoid four forced outages during the year following the project. Moreover, WPL stated that by replacing the reheat section, WPL would “effectively mitigate[] the potential tube failures,” as opposed to delaying the project, which “would likely lead to an increase in the number of potential forced outages due to reheat failures...”

110. WPL projected a cost to repair the reheat section of CGS unit 2 in 2005 of over \$7,000,000.

111. On April 2, 2004, the PSCW issued a Certificate of Authority and Order authorizing WPL to replace the CGS Unit 2 reheat front pendants, finishing reheat section and reheat outlet header. According to the PSCW’s order:

Forced outages due to reheat problems in Unit 2 of Columbia Generating Station have occurred each year since 2001. General tube degradation has occurred due to long term exposure to high temperature, dissimilar metal weld failures in the gas stream, coal ash corrosion, stress corrosion cracking and oxide exfoliation of the internal tube surfaces.

The proposed project is required to insure boiler reliability and to minimize expensive forced outages. The applicants propose to replace the boiler reheat elements that are prone to increasing leaks. The proposed project will enhance the reliability of Unit 2 by reducing the likelihood of forced outages.

The project consists of replacement of the reheat sections including boiler reheat front pendants and finishing reheat section and reheat outlet header during the planned seven-week major outage in 2005...

The need to replace the damaged elements to improve reliability and to minimize forced outages is the primary reason for this project.

112. On August 4, 2004, WPL notified the PSCW that it intended to increase the scope of the project to include replacement of the super-heater division panels at CGS Unit 2 at an additional estimated cost of \$3,435,000.

113. WPL decided to replace the superheater panels on CGS Unit 2 as part of the project because the existing panels had caused several outages due to poor performance.

114. The PSCW issued an order on October 14, 2004, authorizing WPL's change in the scope of the Unit 2 project to include the super-heater panels because the proposed change "is required to insure greater boiler reliability and to minimize expensive forced outages" and because the "super heat division panels have been identified as one of the greatest concern for potential boiler tube leaks [due to] the dissimilar metal welds (DMW) that connect different tube materials..."

115. The PSCW's October, 2004, order noted that the PSCW's staff had "reviewed the number of outages associated with the Columbia Unit #2 super heater" during a rate case and had "discussed the need to replace the same super heater to improve reliability at Columbia."

116. WPL undertook the project as proposed to the PSCW, except that the reheat outlet header was not replaced.

117. The project was completed and the boiler was returned to service on March 18, 2005.

118. The final costs for the project were \$6,210,342 for the reheat replacement portion of the project and \$3,349,231 for the superheat division panel replacement, for a total cost of \$9,559,573.

#### **Characteristics Common to All Project**

119. Each of the projects identified above that occurred at the NED or CGS plants was treated as a capital expenditure. WPL's shareholders earned a return on investment for the money spent on each of the projects, as opposed to maintenance expenses that are passed along to ratepayers but for which no return on investment is earned.

120. Each of the projects above involved outside contractors and was approved by management at WPL's main offices, rather than only by personnel at the NED or CGS plants.

121. Each of the projects above involved planning several months or more prior to commencing the project.

122. None of the projects above has occurred on any of WPL's coal-fired boilers more than once or twice in the life of any single boiler.

#### **Lack of Permits, Monitoring, and Reporting and Failure to Comply With Emission Limits for Modifications to Plants.**

123. WPL did not conduct the monitoring, recordkeeping and reporting provided for in 40 C.F.R. § 52.21(b)(21)(v) (1993) and Wis. Admin. Code § NR 405.02(1)(d) (1999) to demonstrate "on an annual basis for a period of 5 years from the date the unit resumes regular operation" that any of the projects identified above occurring prior to January 16, 2009, at the



NED or CGS plants did not “result in an emissions increase.” *See* Certification of Non-filing, attached as Exhibit 2. Therefore, WPL is not entitled to use the post-project definition of “actual emissions” in 40 C.F.R. § 52.21(b)(21)(v) (1993) and Wis. Admin. Code § NR 405.02(1)(d) and must, instead, calculate emission increases for each of the projects above occurring prior to January 16, 2009, pursuant to the “actual-to-potential” test for the projects above. Under that test, each project resulted in a significant net emissions increase of SO<sub>2</sub>, NO<sub>x</sub>, CO, PM, PM<sub>10</sub>, PM<sub>2.5</sub> and other pollutants.

124. Even based on a projection of future operations after each project (the “actual-to-projected-actual” test), each of the projects above resulted in a significant net emissions increase of O<sub>2</sub>, NO<sub>x</sub>, CO, PM, PM<sub>10</sub>, PM<sub>2.5</sub> and other pollutants.

125. WPL failed to obtain a permit pursuant to the PSD program, 42 U.S.C. § 7470 *et seq.*, 40 C.F.R. § 52.21 and Wis. Admin. Code ch. NR 405, for any of the projects identified above, prior to construction or at any time since construction.

126. WPL failed to obtain a permit pursuant to Wis. Admin. Code ch. NR 406 for any of the projects identified above.

127. WPL failed to comply with best available control technology limits required by 42 U.S.C. § 7475(a)(4), 40 C.F.R. § 52.21(j) and Wis. Admin. Code § NR 405.08 on and after the date of each of the projects identified above.

128. WPL failed to conduct the analysis required by 40 C.F.R. §§ 52.21(k), (m) and (o) and Wis. Admin. Code §§ NR 405.11 and 405.13 of the impact from the modifications and the NED and CGS plants’ emissions for any of the projects identified above.

129. WPL failed to submit the information required to be submitted for major modifications pursuant to 40 C.F.R. § 52.21(n) and Wis. Admin. Code § NR 405.12 for any of the major modifications identified above.

### **FIRST CLAIM**

#### **(Major Modification Without a PSD Permit)**

130. Paragraphs 1 through 129 are incorporated herein by reference.

131. At various times, WPL undertook one or more major modifications, each affecting one or more of the boilers and associated equipment at the NED and CGS plants. Each such major modification was a physical change or change in method of operation which resulted in significant net emission increases, as defined by 40 C.F.R. § 52.21(b) and Wis. Admin. Code §§ NR 405.02(24), (27), of one or more pollutants, including sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, PM<sub>10</sub>, sulfuric acid and mercury.

132. WPL continues to violate Section 165(a) of the Act, 42 U.S.C. § 7475(a), and the PSD regulations set forth in the Wisconsin State Implementation Plan, Wis. Stat. § 285.60, *et seq.*, and Wis. Admin. Code ch. NR 405, by, *inter alia*, its ongoing failure to obtain the required PSD permits for major modifications to the NED and CGS plants.

133. Based upon the foregoing, WPL has violated and continues to violate Section 165(a) of the Act, 42 U.S.C. § 7475(a), 40 C.F.R. § 52.21, Wis. Stat. § 285.60 and Wis. Admin. Code ch. NR 405. Unless restrained by an order of this Court, these and similar violations of the PSD provisions of the Act are and will be ongoing.

134. Sierra Club has a claim for each such violation pursuant to 42 U.S.C. § 7604(a)(1) and (3).

## **SECOND CLAIM**

(Failure to Comply With Best Available Control Technology)

135. Paragraphs 1 through 131 are incorporated herein by reference.

136. Each of the projects identified above constitutes a major modification which triggered emission limits known as “best available control technology” applicable to the modified boiler.

137. Best available control technology is an emission limit that applies to emission sources that have undergone a major modification. Such limits are unit-specific, but are at least as stringent as the limits set forth in 40 C.F.R. parts 60 and 61. Typically, best available control technology limits are significantly more stringent than the limits in 40 C.F.R. parts 60 and 61.

138. Beginning with the first day that the first major modification was completed and returned to service, the NED and CGS plants have emitted one or more pollutants, including particulate matter (PM, PM<sub>10</sub> and PM<sub>2.5</sub>), nitrogen oxides, sulfur dioxide, carbon monoxide and sulfuric acid mist, at rates greater than the best available control technology limit for each such pollutant.

139. WPL continues to be in violation of the ongoing requirement to comply with best available control technology for each major modification, including those set forth above, as required by 42 U.S.C. § 7475(a)(4), 40 C.F.R. § 52.21(j) and Wis. Admin. Code § NR 405.08.

140. Sierra Club has a claim for each such violation pursuant to 42 U.S.C. § 7604(a)(1).

### **THIRD CLAIM**

(Failure to Make Demonstrations and Submit Information)

141. Paragraphs 1 through 131 are incorporated here by reference.

142. Beginning with the first day that the first major modification was completed at each plant, WPL has failed to demonstrate that the emissions from the NED and CGS plants do not cause or contribute to a violation of either national ambient air quality standards, or applicable maximum allowable increases over the baseline concentration, as required by 42 U.S.C. § 7475(a)(3), 40 C.F.R. § 52.21(k) and Wis. Admin. Code § NR 405.09.

143. On information and belief, even if WPL had attempted to make such showing, it could not because the emission rates from the plants, when used in an approved ambient air impact model, show violations of applicable standards.

144. Beginning with the first day that the first major modification was completed, WPL has failed to submit an analysis of air quality in the area of the NED and CGS plants, as required by 40 C.F.R. § 52.21(m) and Wis. Admin. Code §§ NR 405.11- 405.12.

145. Beginning with the first day that the first major modification was completed at each plant, WPL has failed to submit all information necessary to perform any analysis or make any determination required under 40 C.F.R. § 52.21(k), (m) and (o) and Wis. Admin. Code ch. NR 405, including the information necessary to determine air quality impacts resulting from the major modifications to the NED and CGS plants and to determine best available control technology, in violation of 40 C.F.R. § 52.21(n) and Wis. Admin. Code § NR 405.12.

146. Sierra Club has a claim for each such violation pursuant to 42 U.S.C. § 7604(a)(1).

#### **FOURTH CLAIM**

(Violations of the Clean Air Act Title V Program and Wis. Admin. Code ch. NR 407)

147. Paragraphs 1 through 146 are incorporated herein by reference.

148. WPL has violated 42 U.S.C. § 7661a(a), 40 C.F.R. §§ 70.5(a) and (c), Wis. Admin. Code §§ NR 407.04 and 407.05, and the Title V permits issued for the NED and CGS plants by failing to apply for and obtain a revised Title V permit for each of the modifications above, failing to apply for a Title V permit that contained all of the applicable requirements for the plant, and by failing to provide other specific information that may be necessary to implement and enforce applicable requirements, including but not limited to the requirement to comply with best available control technology limits for particulate matter (PM, PM<sub>10</sub> and PM<sub>2.5</sub>), nitrogen oxides, sulfur dioxide, carbon monoxide and sulfuric acid mist.

149. WPL has also violated 42 U.S.C. §§ 7661a(a), 7661b(b)(2), 7661c(a) and (c), 40 C.F.R. §§ 70.5(c)(4)(i), 70.5(c)(8)(i), 70.5(c)(8)(ii)(C) and (iii)(C), and 70.5(9), Wis. Admin. Code § NR 407.05(4), and the Title V permits issued for the NED and CGS plants by submitting Title V permit applications pursuant to Clean Air Act Title V, 40 C.F.R. pt. 70, and Wis. Admin. Code ch. NR 407 that: (i) contained a false certification of compliance with applicable air pollution requirements; (ii) failed to identify 42 U.S.C. § 7475, 40 C.F.R. §§ 52.21(i) through (n), and Wis. Admin. Code §§ NR 405.07 through 405.09, and 405.11 through 405.13 as applicable requirements for the existing boilers; (iii) failed to identify the NED and CGS plants as not complying with 42 U.S.C. § 7475, 40 C.F.R. §§ 52.21(i) through (n) and Wis. Admin. Code ch. NR 405; and (iv) failed to provide a schedule of compliance to bring the NED and CGS

boilers into compliance with 42 U.S.C. § 7475, 40 C.F.R. §§ 52.21(i) through (n), and Wis. Admin. Code ch. NR 405.

150. WPL further also violated 40 C.F.R. § 70.5(b) and Wis. Admin. Code § NR 407.05(9), by continuously failing to supplement or otherwise correct information submitted with the Title V permit application that was incorrect.

151. WPL also violated Wisconsin Admin. Code §§ NR 407.05(4)(i)3 and 439.03(1)(c), (9), (10), and Permits 122014530-P01, 122014530-P03, 122014530-P10, 122014530-P11, 1110030990-P01, 111030990-P10, 111003090-P20, and 11103090-P21 by submitting certifications of compliance annually to the Department of Natural Resources and U.S. EPA that were not truthful by failing to disclose the violations set forth herein.

152. Each violation set forth in this Complaint also constitutes a violation of section II.B. of each of the permits issued by Wisconsin DNR to WPL.

153. Sierra Club has a claim for each such violation pursuant to 42 U.S.C. § 7604(a)(1).

### **FIFTH CLAIM**

(Failure to Obtain a Construction Permit Pursuant to Wis. Stat. § 285.60 and Wis. Admin. Code ch. NR 406)

154. Paragraphs 1 through 131 are incorporated herein by reference.

155. In addition to the PSD preconstruction permit requirements, the Clean Air Act also adopts Wisconsin's State Implementation Plan, which includes permitting requirements for modifications in addition to those set forth in the PSD program. Wis. Stat. § 285.60(1)(a)1.; Wis. Admin. Code § NR 406.03.

156. Pursuant to Wisconsin's permitting program, each source must obtain a permit prior to undertaking any non-exempt modification. The term "modification" for this program is defined as "any physical change in, or change in the method of operation of, a stationary source that increases the amount of emissions of an air contaminant or that results in the emission of an air contaminant not previously emitted." Wis. Admin. Code § NR 400.02(99). This permit requirement is in addition to any PSD permit required.

157. The modifications made to the NED and CGS plants set forth above required a permit pursuant to Wis. Admin. Code ch. NR 406.

158. WPL failed to obtain a permit pursuant to Wis. Admin. Code ch. NR 406 for any of the modifications set forth above, in violation of the Clean Air Act.

159. The requirement to obtain a preconstruction permit pursuant to Wis. Admin. Code ch. NR 406 is an ongoing requirement. The Wisconsin DNR requires such permits even after-the-fact where operators, such as WPL in this case, failed to obtain a permit before commencing construction.

160. Sierra Club has a claim for each such violation pursuant to 42 U.S.C. § 7604(a)(1).

## **SIXTH CLAIM**

(Declaratory Relief)

161. Paragraphs 1 through 160 are incorporated herein by reference.

162. Pursuant to 28 U.S.C. §§ 2201 and 2202, Sierra Club is entitled to a declaration that WPL violated and is in violation of the Act by commencing one or more major modifications of the NED and CGS plants without first obtaining the required permits, that each of the units at the NED and CGS plants is a modified source for purposes of the PSD programs, each of the boilers at NED and the CGS boiler 2 are subject to best available control technology limits, and such further necessary or proper relief as may be granted by the Court.

## **PRAYER FOR RELIEF**

WHEREFORE, based upon the foregoing, the Sierra Club requests that this Court:

1. Permanently enjoin WPL from operating the NED and CGS Generating Stations, including the construction of future modifications, except in accordance with the Clean Air Act and any applicable regulatory requirements;
2. Order WPL to apply for and obtain permits that are in conformity with the requirements of the PSD provisions of the Clean Air Act for each modification which WPL commenced without first obtaining a PSD permit;
3. Order WPL to remedy its past violations by, *inter alia*, requiring WPL to install, as appropriate, the necessary pollution controls to meet best available control technology emission limits;



4. Order WPL to take other appropriate actions to remedy, mitigate, and offset the harm to public health and the environment caused by the violations of the Clean Air Act alleged above;

5. Order WPL to conduct audits of its operations to determine if any additional modifications have occurred which would require it to meet the requirements of PSD and to report the results of these audits to Sierra Club, the United States Environmental Protection Agency, and the Wisconsin Department of Natural Resources;

6. Order WPL to pay civil penalties of \$25,000 to \$37,500.00 per day for each separate violation of the Clean Air Act, 42 U.S.C. § 7604(g); 40 C.F.R. § 19.4; 74 Fed. Reg. 626 (Jan. 7, 2009), including a beneficial mitigation project pursuant to 42 U.S.C. § 7604(g)(2) in an area that reduces air pollution impacts to Sierra Club's members;

7. Order WPL to pay Sierra Club's costs of this case, including reasonable attorneys' fees;

8. Declare that WPL was required to obtain a PSD permit for major modifications to the NED and CGS plants;

9. Declare that the NED and CGS are modified sources for purposes of the Clean Air Act PSD program;

10. Declare that the boilers at NED and CGS are subject to best available control technology limits; and

11. Award any other relief that the Court finds just and equitable.

Dated: September 9, 2010

McGILLIVRAY WESTERBERG & BENDER LLC

/s/ David C. Bender

David C. Bender  
Christa O. Westerberg  
Pamela R. McGillivray  
305 S. Paterson Street  
Madison, WI 53703  
Tel. 608.310.3560  
Fax 608.310.3561  
Email: [bender@mwbattorneys.com](mailto:bender@mwbattorneys.com)  
[westerberg@mwbattorneys.com](mailto:westerberg@mwbattorneys.com)  
[mcgillivray@mwbattorneys.com](mailto:mcgillivray@mwbattorneys.com)

*Attorneys for the Plaintiff Sierra Club*